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| 09/938.923 | 08/24/2001 | Ruixi Yuan | 98-409RCE1CON1 | 3517 |
| 32127 | 7590 | 11/09/2004 | EXAMINER | |
| VERIZON CORPORATE SERVICES GROUP INC. C/O CHRISTIAN R. ANDERSEN 600 HIDDEN RIDGE DRIVE MAILCODE HQEO3H14 IRVING, TX 75038 | | | PHUNKULH, BOB A | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2661 | |
| DATE MAILED: 11/09/2004 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/938,923

Applicant(s)

YUAN ET AL.

Examiner

Bob A. Phunkulh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This communication is in response to applicant's 08/24/2001 amendment(s)/response(s) in the application of **Yuan et al.** for "**Method and System for Connectionless Communication in a Cell Relay Satellite Network**" filed 08/24/2001. The amendments/response to the claims have been entered. Claim 4 has been canceled. No claim have been added. Claims 1-3, 5-16 are now pending.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sanders et al. (US 5,563,879), hereinafter Sanders, in view of Van Daele et al. (US 5,600,629), Van Daele .

Regarding claims 1-3, 10, 16, Sanders discloses a method for communicating a packet in a communications network comprising a cell relay satellite, said method comprising the steps of:

dividing the packet into segments at a source in the communications network (col. 1 lines 34-38 and col. 4 lines 54-65);

generating a cell for each of the segments, wherein each cell includes a first portion and a second portion with a prefix, a downlink beam locator, and a source identifier included in the first portion (see col. 4 lines 54-65; and figure 2;

inserting each of the segments into the second portion of each of the generated cells (payload in figure 2), respectively;

transmitting the generated cells to a node in the communications network via the cell relay satellite without establishing a connection in the communications network, wherein the node receives cells from a plurality of sources (*because of the continuously changing satellite constellation geography and physical routing paths (without establishing a connection), messages are divided into segments and transmitted through the continuously changing constellation of satellites*, see col. 1 lines 34-38); and

identifying the cells from the first source to be included in the packet for reassembly at the node based on the source identifier in the first portion of each of the transmitted cells, such that the packet is reassembled at the node from the identified calls.

Sanders fails to disclose that the header portion contains a prefix, a downlink beam locator, and a source identifier.

Van Daele, on the other hand, teaches that a method for routing data packets between nodes in a satellite communication system consist of utilizing header information contained in each of the packets to route data packet between nodes, wherein each header comprise of **CI 40 field** , **relay count 41** , **payload type 42** (*prefix*); **logical channel number 44** (*downlink beam locator*); and **destination ID 43**

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(see figs. 2-3). Also, it is well known in the art that a packet consists of a header and a payload, wherein the header consists of at least a source address (*source identifier*), and a destination address for routing purposes.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made to provide a prefix field, a downlink beam locator field; and a source identifier field in the header portion of the packet as taught by Van Daele in the method taught by Sanders to routes data packets between nodes based on header information contained in each of the packet.

Regarding claims 5-7, 11-12, 15, Sanders discloses a method for communicating a packet in a first communications network comprising a cell relay satellite, said method comprising the steps of:

receiving, at a first destination in the first communications network, a plurality of cells (a segment comprise at least one segment or packet, see col. 4 lines 54-65; and figure 2), wherein the plurality of cells has been generated by one or more source, each cell comprising:

a second portion including a segment of a packet;

identifying the received cells from one of the one or more sources to be includes in the packet for reassembly based on the information in the first portion of the received cells (see claim 1); and

re-assembling the packet from the segments in the second portion of the received cells.

Sanders fails to disclose that the header portion contains a prefix, a downlink beam locator, and a source identifier.

Van Daele, on the other hand, teaches that a method for routing data packets between nodes in a satellite communication system consist of utilizing header information contained in each of the packets to route data packet between nodes, wherein each header comprise of **CI 40 field** , **relay count 41**, **payload type 42** (*prefix*); **logical channel number 44** (*downlink beam locator*); and **destination ID 43** (**see figs. 2-3**). Also, it is well known in the art that a packet consists of a header and a payload, wherein the header consists of at least a source address (*source identifier*), and a destination address for routing purposes.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made to provide a prefix field, a downlink beam locator field; and a source identifier field in the header portion of the packet as taught by Van Daele in the method taught by Sanders to routes data packets between nodes based on header information contained in each of the packet.

Regarding claims 8, 9, Sander discloses a system associated with a satellite earth station for communicating a packet without establishing a connection in a communications network comprising a cell relay satellite, said system comprising:

a memory comprising a packet converter program for segmenting the packet into a number of segments, and for generating a cell for each of the segments, wherein each cell includes a first portion and a second portion, and for inserting each of the

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segments in to the second portion of the generated cells, respectively (see col. 2 lines 1-15; and col. 4 lines 54-65);

a processor for running the packet converter program; and

a transmitter for transmitting the generated cells to a node in the communications network via the cell relay satellite such that the cells to be included in the packet are identified from among cells received from one or more sources for reassembly based on the source identifier in the first portion of each of the transmitted cells and the packet is reassembled at the node from the identified cells (see figure 3-4 for reassembling the segments).

Sanders fails to disclose that the header portion contains a prefix, a downlink beam locator, and a source identifier.

Van Daele, on the other hand, teaches that a method for routing data packets between nodes in a satellite communication system consist of utilizing header information contained in each of the packets to route data packet between nodes, wherein each header comprise of **CI 40 field** , **relay count 41**, **payload type 42** (*prefix*); **logical channel number 44** (*downlink beam locator*); and **destination ID 43** (**see figs. 2-3**). Also, it is well known in the art that a packet consists of a header and a payload, wherein the header consists of at least a source address (*source identifier*), and a destination address for routing purposes.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made to provide a prefix field, a downlink beam locator field; and a source identifier field in the header portion of the packet as taught by Van Daele

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in the method taught by Sanders to routes data packets between nodes based on header information contained in each of the packet.

Regarding claim 13, Sanders discloses a method for communicating a packet in a communications network comprising a cell relay satellite, said method comprising the steps of:

dividing the packet into segments at a source in the communications network (see col. 2 lines 9-15);

generating a cell for each of the segments, wherein each cell includes a first portion and a second portion (see col. 4 lines 54-65);

inserting each of the segments into the second portion of each of the generated cells, respectively (see figure 2);

transmitting the generated cells to the cell relay satellite without establishing a connection in the communications network;

receiving cells from a plurality of sources at a destination in the communications network, wherein the received cells include the transmitted cells;

identifying the transmitted cells to be included in the packet for reassembly based on the information in the first portion of the received cells; and

re-assembling the packet from the segments in the second portion of the identified cells (see figures 3-4).

Sanders fails to disclose that the header portion contains a prefix, a downlink beam locator, and a source identifier.

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Van Daele, on the other hand, teaches that a method for routing data packets between nodes in a satellite communication system consist of utilizing header information contained in each of the packets to route data packet between nodes, wherein each header comprise of **CI 40 field** , **relay count 41**, **payload type 42** (*prefix*); **logical channel number 44** (*downlink beam locator*); and **destination ID 43** (**see figs. 2-3**). Also, it is well known in the art that a packet consists of a header and a payload, wherein the header consists of at least a source address (*source identifier*), and a destination address for routing purposes.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made to provide a prefix field, a downlink beam locator field; and a source identifier field in the header portion of the packet as taught by Van Daele in the method taught by Sanders to routes data packets between nodes based on header information contained in each of the packet.

Regarding claim 14, Sanders discloses a method for communicating a packet in a communications network comprising a cell relay satellite, said method comprising the steps of:

dividing the packet into segments at a source in the communications network (see col. 2 lines 9-15);

generating a cell for each of the segments, wherein each cell includes a first portion and a second portion (see col. 4 lines 54-65);

inserting each of the segments into the second portion of each of the generated cells, respectively (see figure 2);

transmitting the generated cells to the cell relay satellite without establishing a connection in the communications network;

receiving cells from a plurality of sources at a destination in the communications network, wherein the received cells include the transmitted cells;

identifying the transmitted cells to be included in the packet for reassembly based on the information in the first portion of the received cells (see figures 3-4).

Sanders fails to disclose that the header portion contains a prefix, a downlink beam locator, and a source identifier.

Van Daele, on the other hand, teaches that a method for routing data packets between nodes in a satellite communication system consist of utilizing header information contained in each of the packets to route data packet between nodes, wherein each header comprise of **CI 40 field** , **relay count 41**, **payload type 42** (*prefix*); **logical channel number 44** (*downlink beam locator*); and **destination ID 43** (**see figs. 2-3**). Also, it is well known in the art that a packet consists of a header and a payload, wherein the header consists of at least a source address (*source identifier*), and a destination address for routing purposes.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made to provide a prefix field, a downlink beam locator field; and a source identifier field in the header portion of the packet as taught by Van Daele

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in the method taught by Sanders to routes data packets between nodes based on header information contained in each of the packet.

Conclusion

Any response to this action should be mailed to:

The following address mail to be delivered by the United States Postal Service (USPS) only:

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P. O. Box 1450
Alexandria, VA 22313-1450

or faxed to:

(703) 872-9306, (for formal communications intended for entry)

Or:

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220 20th Street South
Customer Window, Mail Stop _____
Crystal Plaza Two, Lobby, Room 1B03
Arlington, VA 22202.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Bob A. Phunkulh** whose telephone number is **(571) 272-3083**. The examiner can normally be reached on Monday-Tuesday from 8:00 A.M.

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to 5:00 P.M. (first week of the bi-week) and Monday-Friday (for second week of the bi-week).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's acting supervisor **Kenneth Vanderpuye**, can be reach on **(571) 272-3078**. The fax phone number for this group is **(703) 872-9306**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Bob A. Phunkulh



TC 2600

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November 4, 2004

BOB PHUNKULH
PRIMARY EXAMINER